

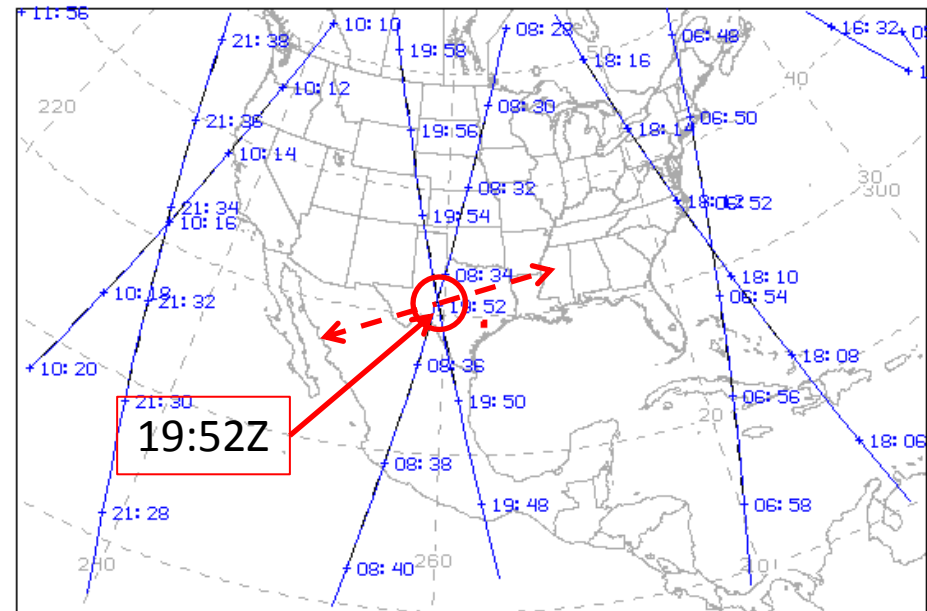
# RAQMS 20150405 SONGNEX

## 54hr and 78hr FX for 18Z April 06 and 07, 2015

S-NPP (CrIS) overpass on 2015/04/06 and 2015/04/07

NUCAPS CO<sub>2</sub>, O<sub>3</sub>, CO, CH<sub>4</sub> Validation Opportunity –*near nadir (06) and western (07) swaths*

S-NPP overpass over Dallas at 18:52Z (1:52pm Central)

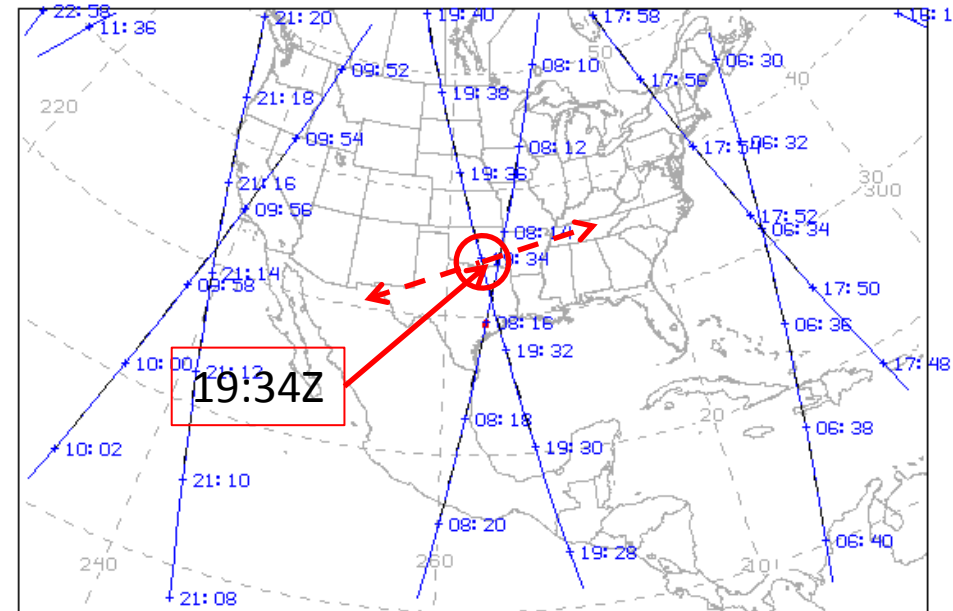


NPP\_2015/04/06 UTC

NPP ORBITAL PREDICT PLOT

EPOCH DATE: Apr-4-2015

lat: 30.269 lon: 262.256 res: 24 km



NPP\_2015/04/07 UTC

NPP ORBITAL PREDICT PLOT

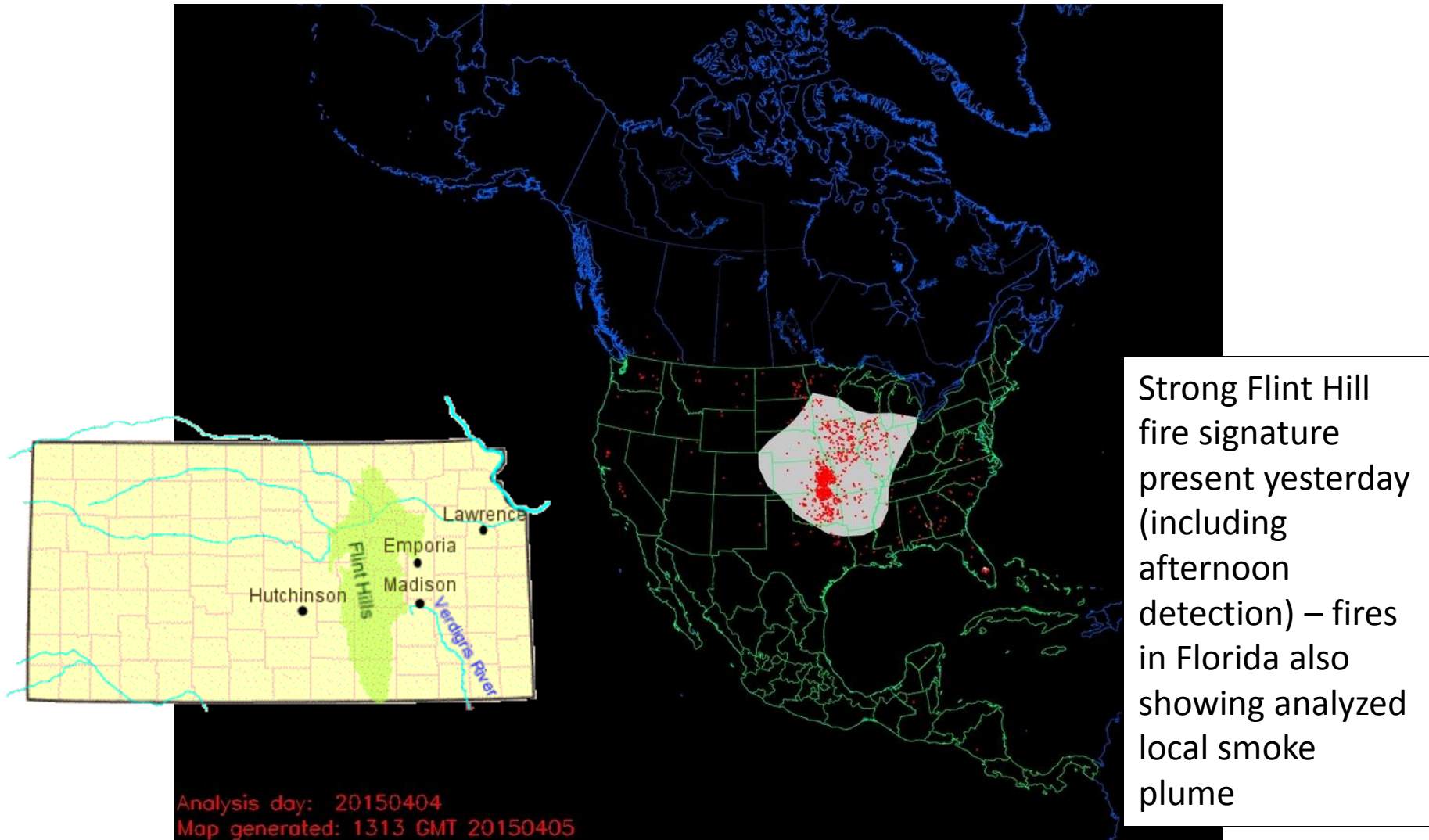
EPOCH DATE: Apr-4-2015

lat: 30.269 lon: 262.256 res: 24 km

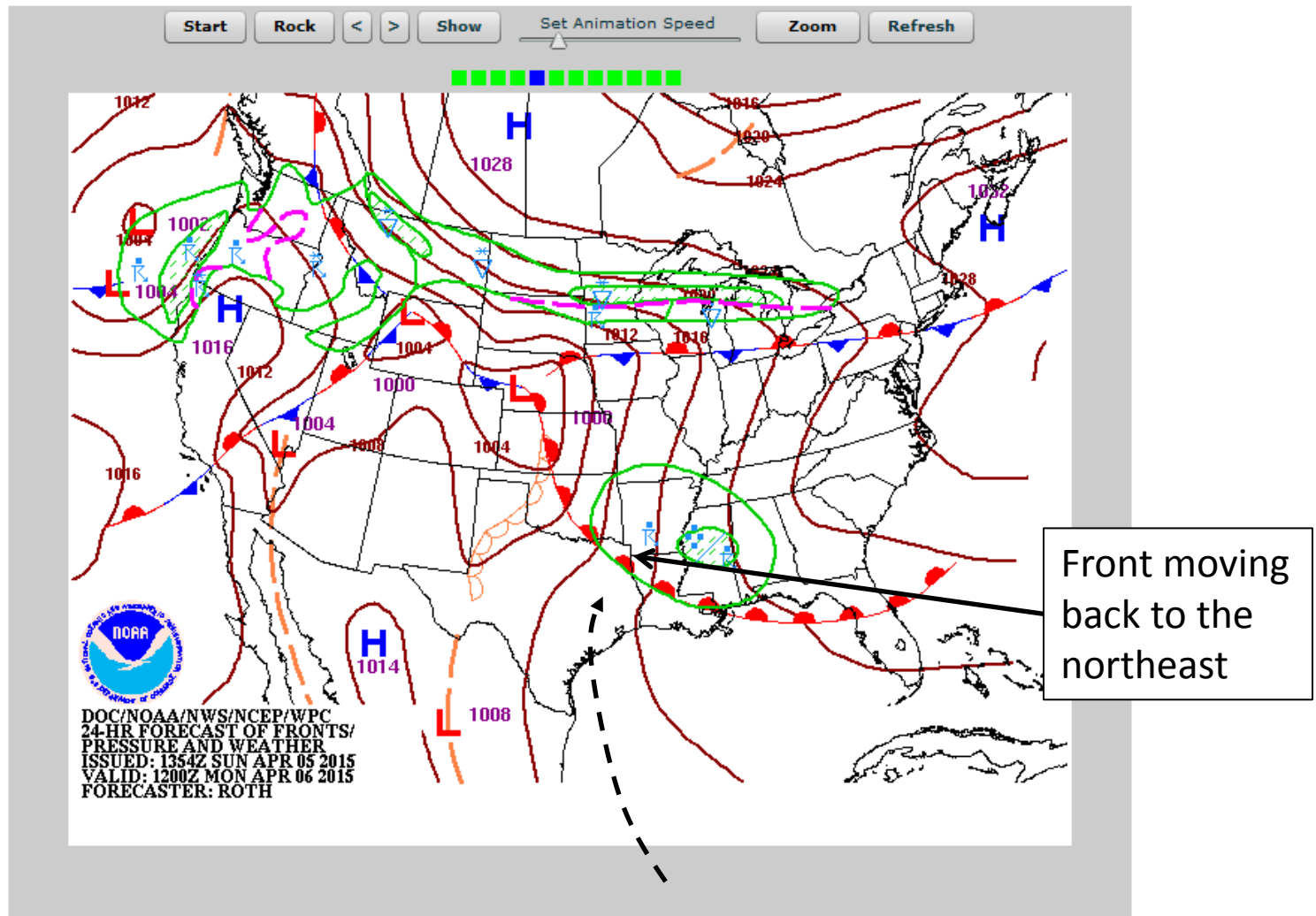
Approximate swath width

# NESDIS Hazard Mapping System (HMS)

<http://www.ospo.noaa.gov/data/land/fire/currenthms.jpg>



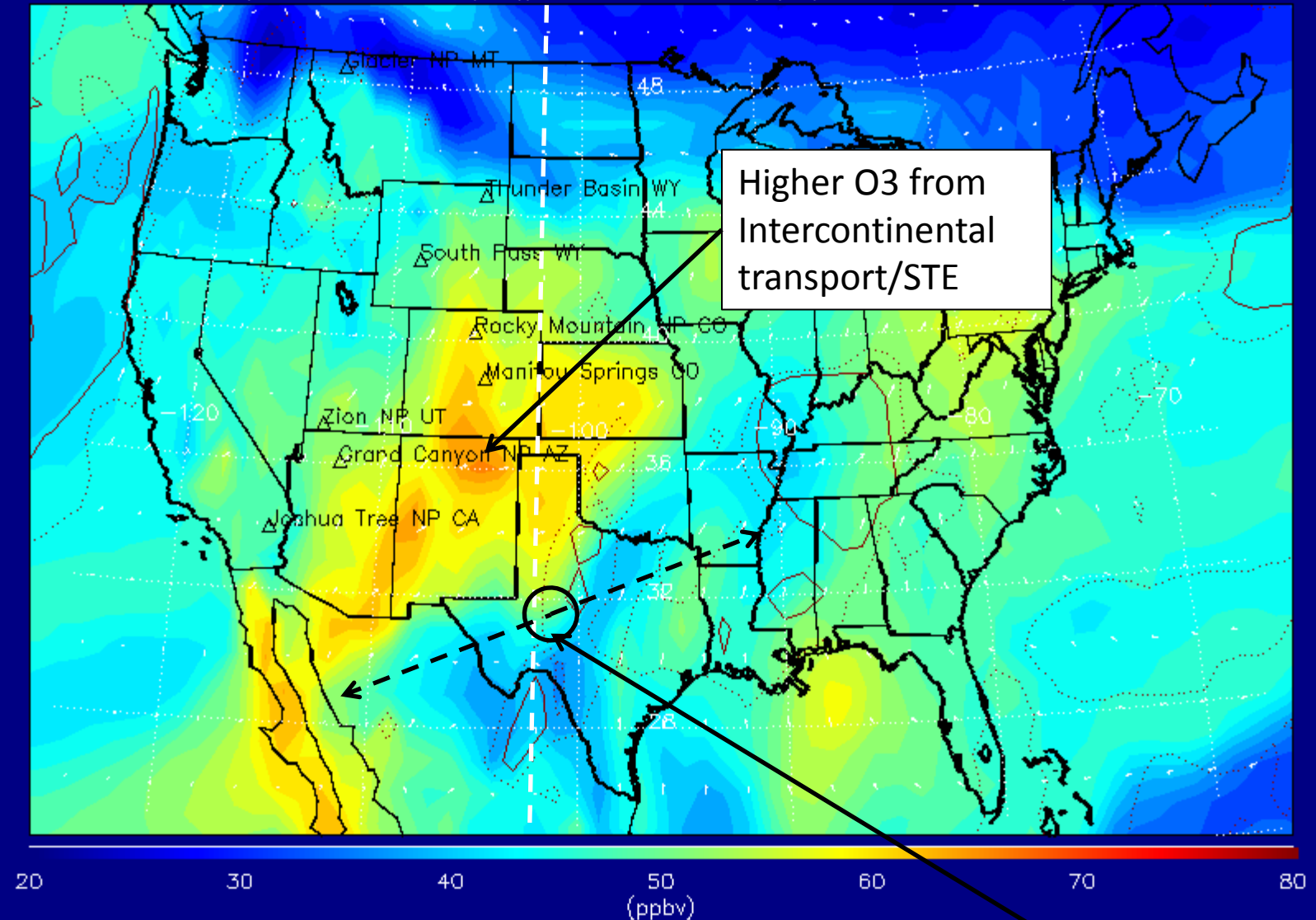
## 24hr NCEP/WPC forecast valid 12Z 04/06/2015



<http://www.hpc.ncep.noaa.gov/basicwx/day0-7loop.html>

01km AGL O<sub>3</sub> 18Z 20150406

(MSL Pressure Contoured (white)/95-75% Convective Precip (Red) 95% CPCP=0.0500895 mm/hr



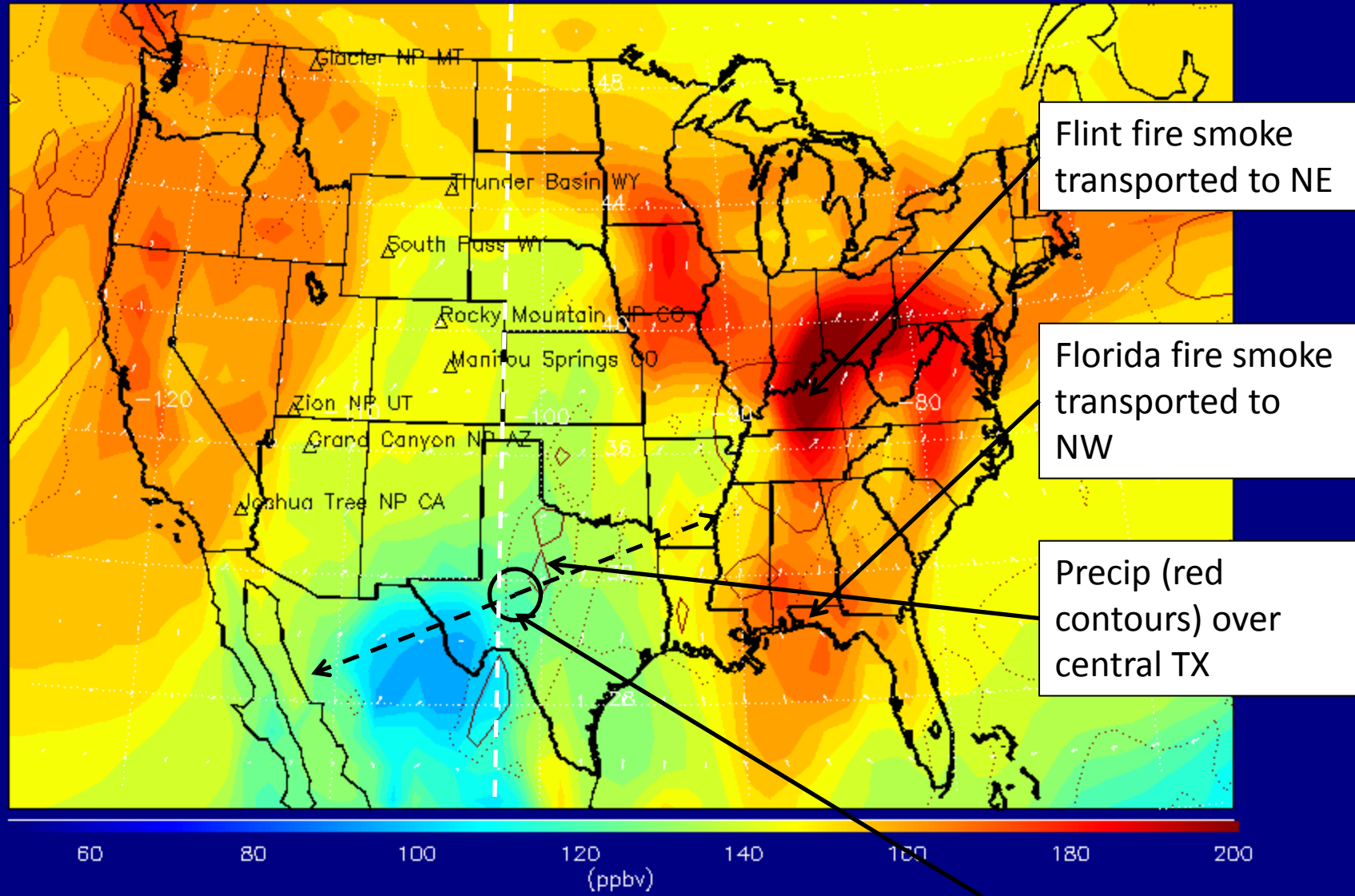
RAQMS<sub>6</sub> 54hr Fx Initialized 12Z 20150404

Permian Basin west of S-NPP swath

Approximate swath width

01km AGL CO 18Z 20150406

(MSL Pressure Contoured (white))/95-75% Convective Precip (Red) 95% CPCP=0.0500895 mm/hr



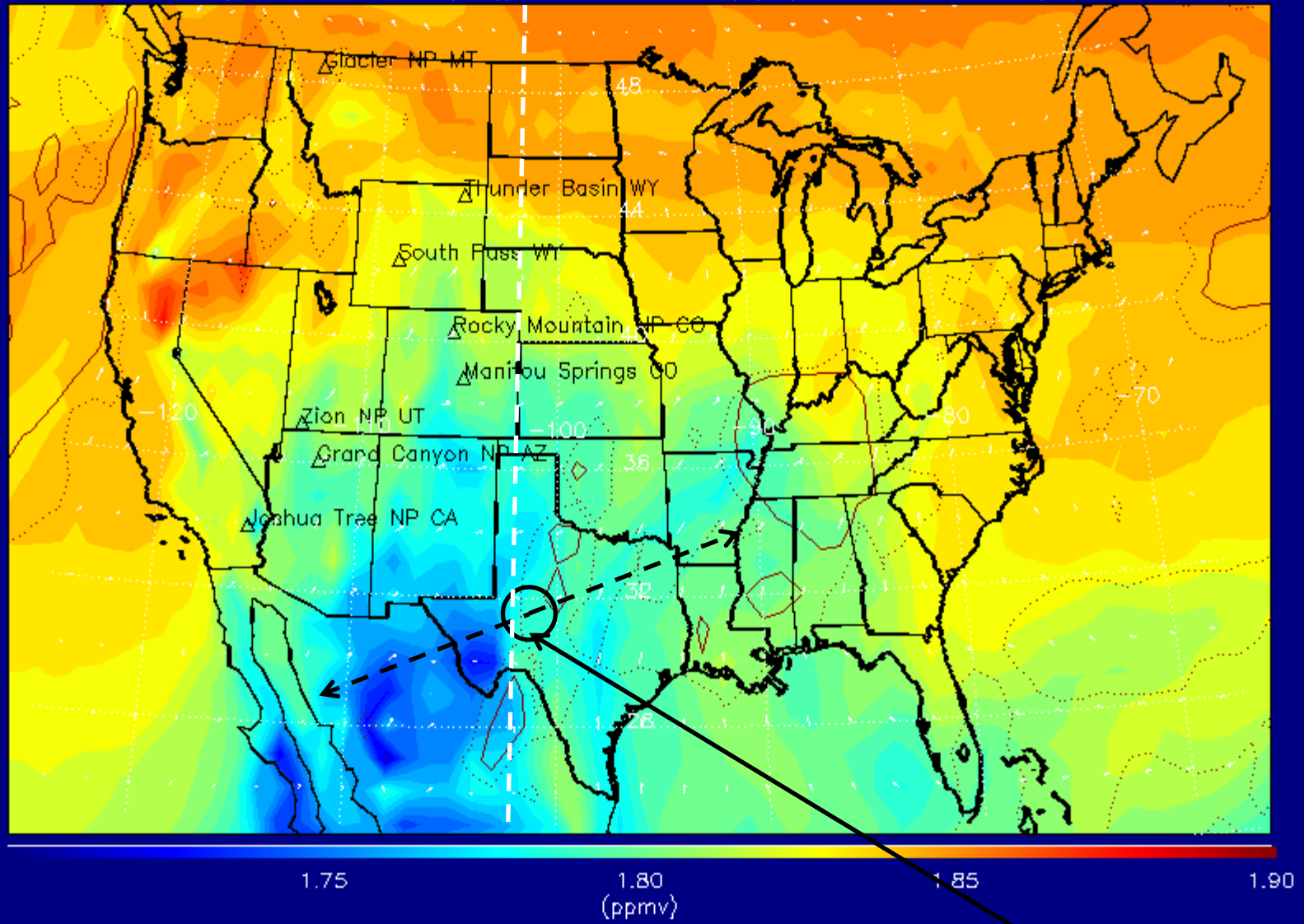
RAQMS<sub>6</sub> 54hr Fx Initialized 12Z 20150404

Permian Basin west of S-NPP swath

Approximate swath width

01km AGL CH<sub>4</sub> 18Z 20150406

(MSL Pressure Contoured (white)/95–75% Convective Precip (Red) 95% CPCP=0.0500895 mm/hr



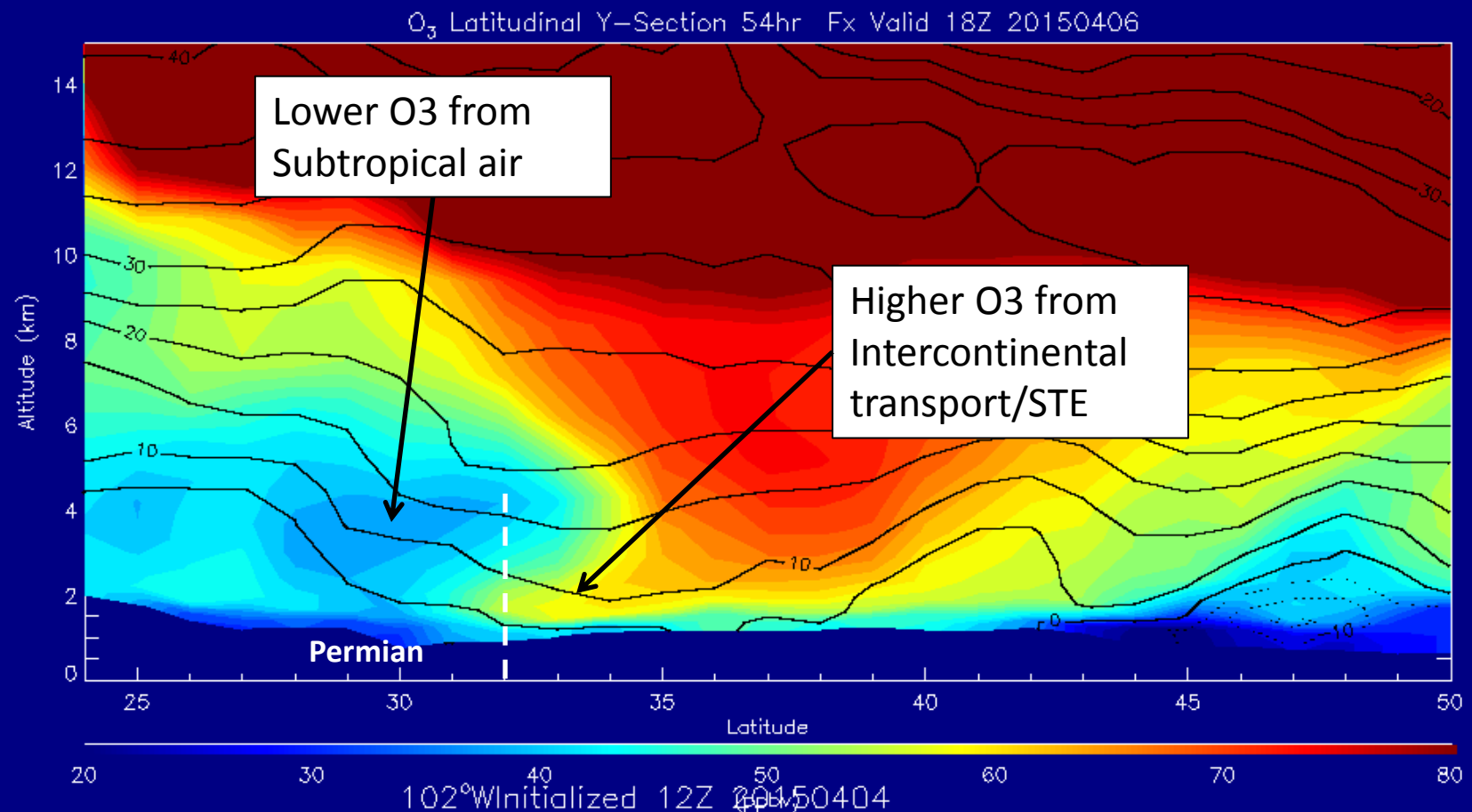
RAQMS<sub>6</sub> 54hr Fx Initialized 12Z 20150404

Permian Basin west of S-NPP swath

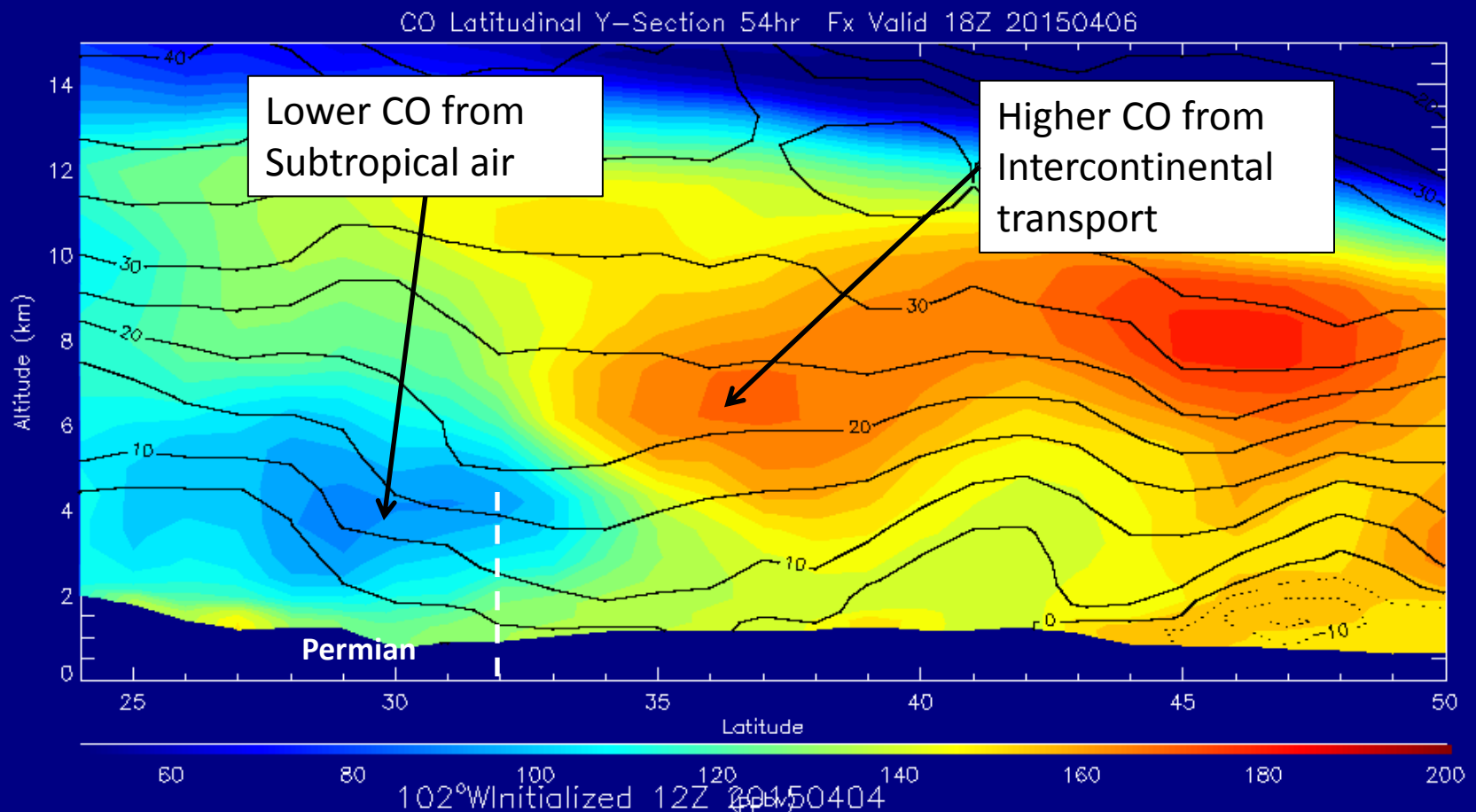
RAQMS surface CH<sub>4</sub> constrained with 1990 mixing ratio – introduces ~0.1ppmv low bias



# RAQMS 54hr FX O<sub>3</sub> Cross-section at 102W (Permian Basin)

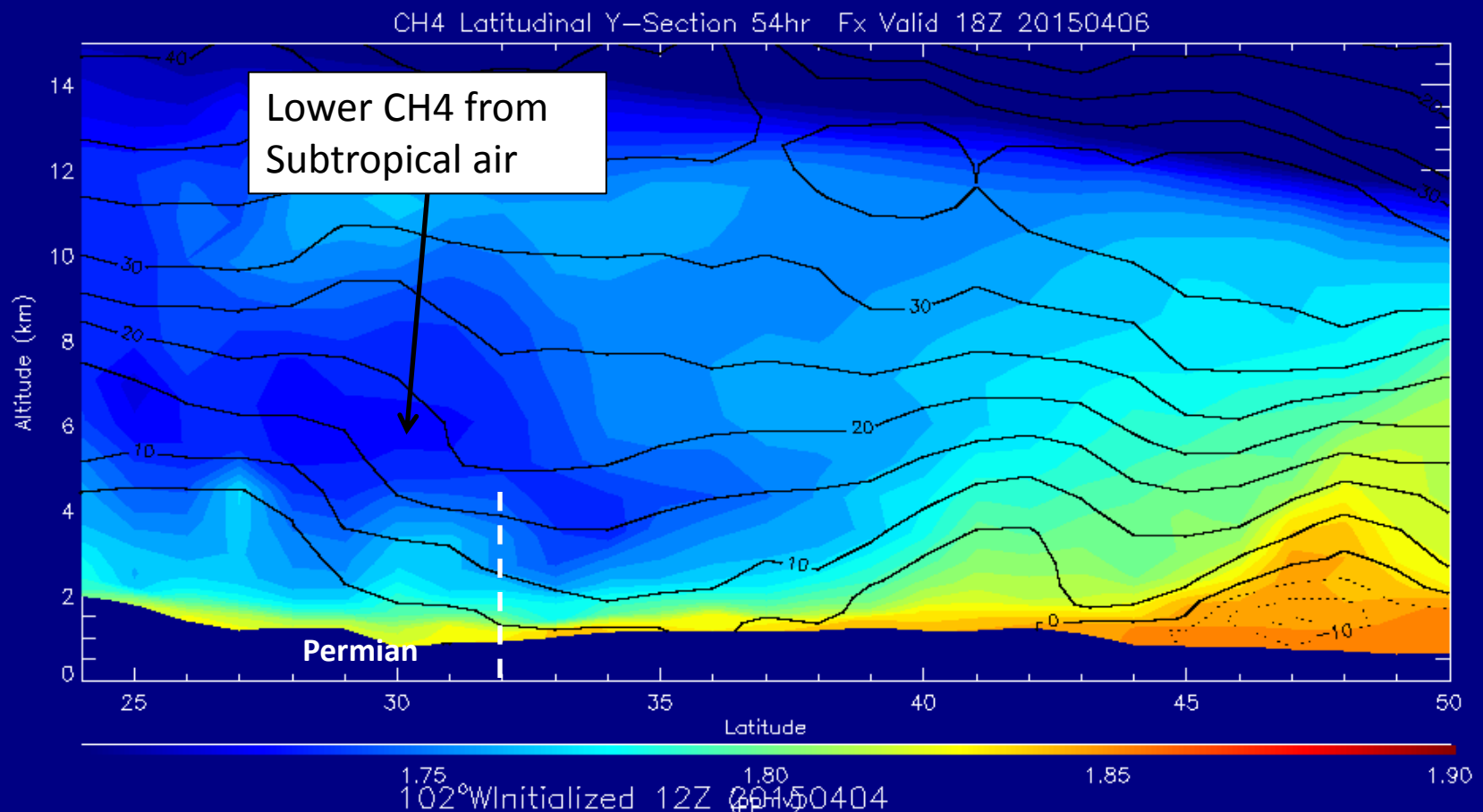


RAQMS 54hr FX CO Cross-section at 102W  
(Permian Basin)



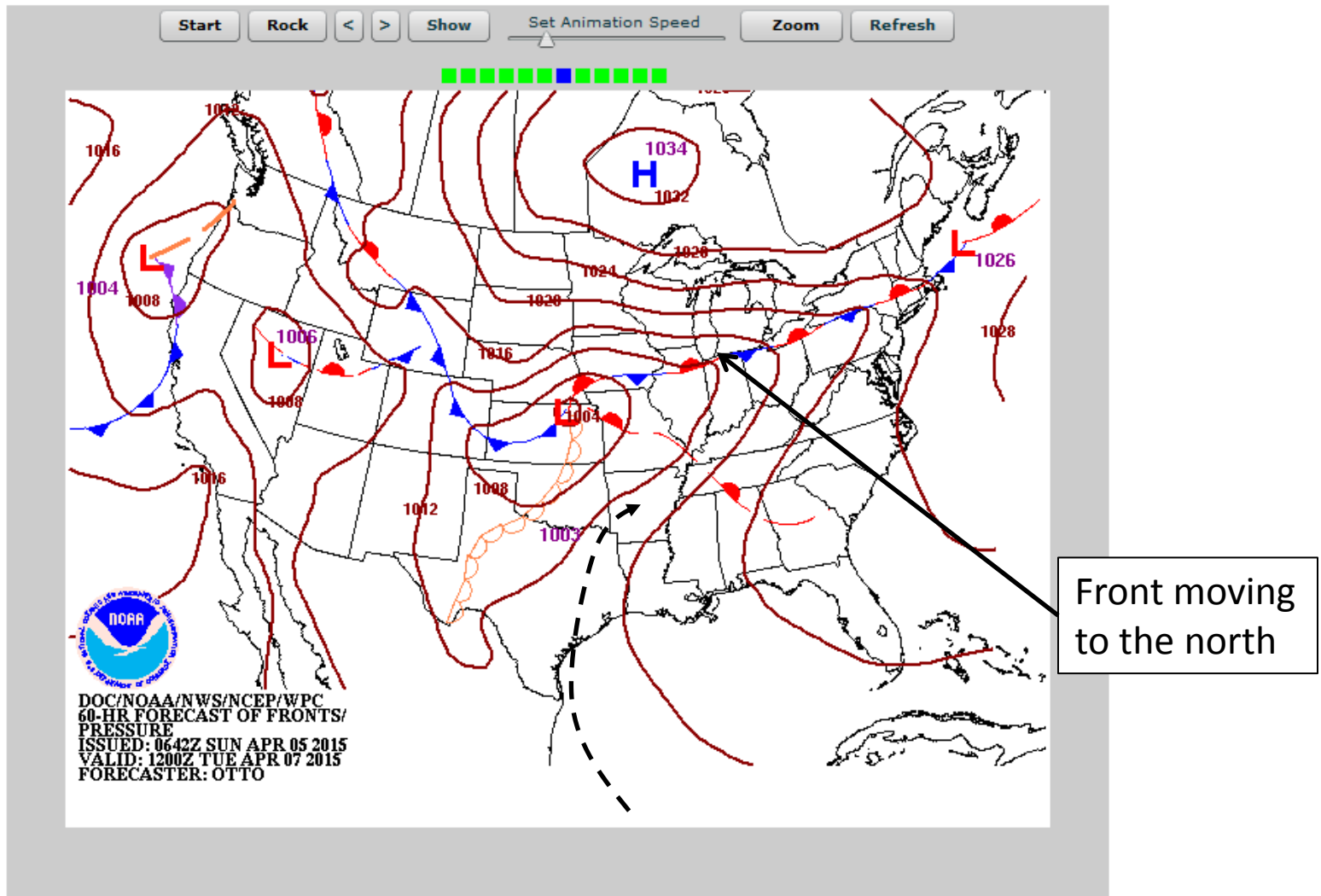


## RAQMS 54hr FX CH<sub>4</sub> Cross-section at 102W (Permian Basin)



RAQMS surface CH<sub>4</sub> constrained with 1990 mixing ratio – introduces ~0.1ppmv low bias

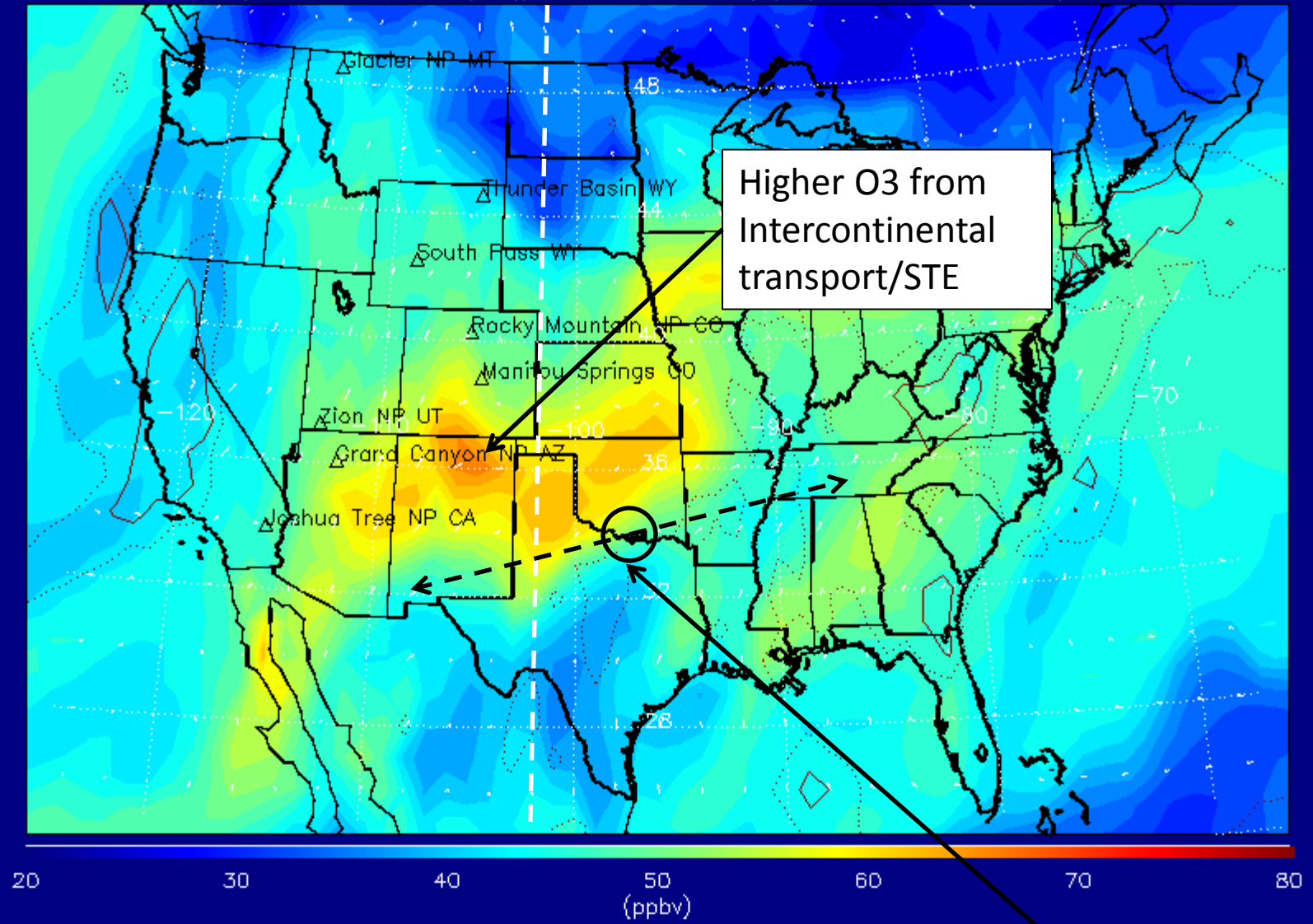
## 60hr NCEP/WPC forecast valid 12Z 04/07/2015



<http://www.hpc.ncep.noaa.gov/basicwx/day0-7loop.html>

01km AGL O<sub>3</sub> 18Z 20150407

(MSL Pressure Contoured (white)/95-75% Convective Precip (Red) 95% CPCP=0.0923157 mm/hr



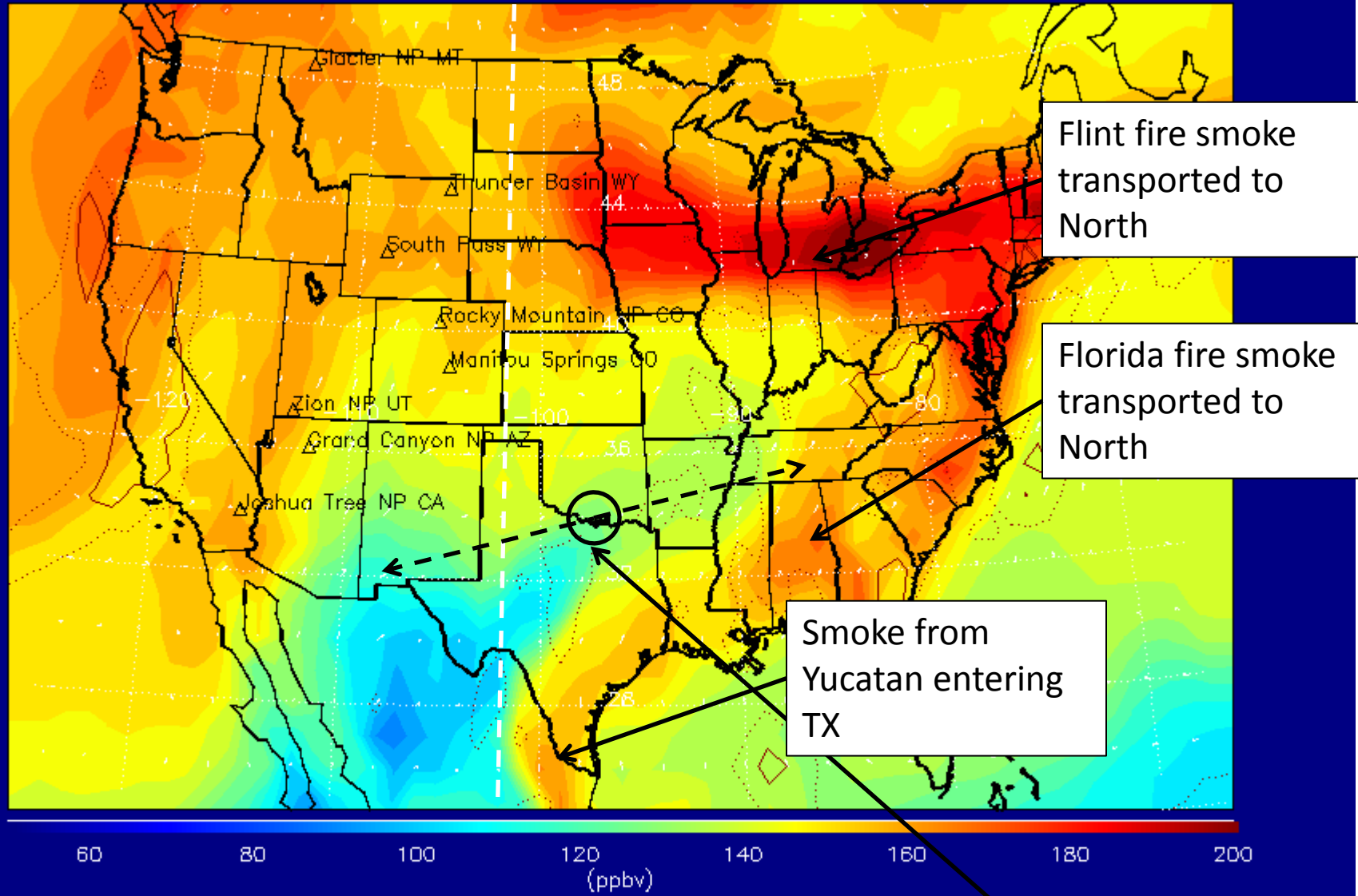
RAQMS<sub>6</sub> 78hr Fx Initialized 12Z 20150404

Permian Basin west of S-NPP swath

Approximate swath width

01km AGL CO 18Z 20150407

(MSL Pressure Contoured (white)/95-75% Convective Precip (Red) 95% CPCP=0.0923157 mm/hr



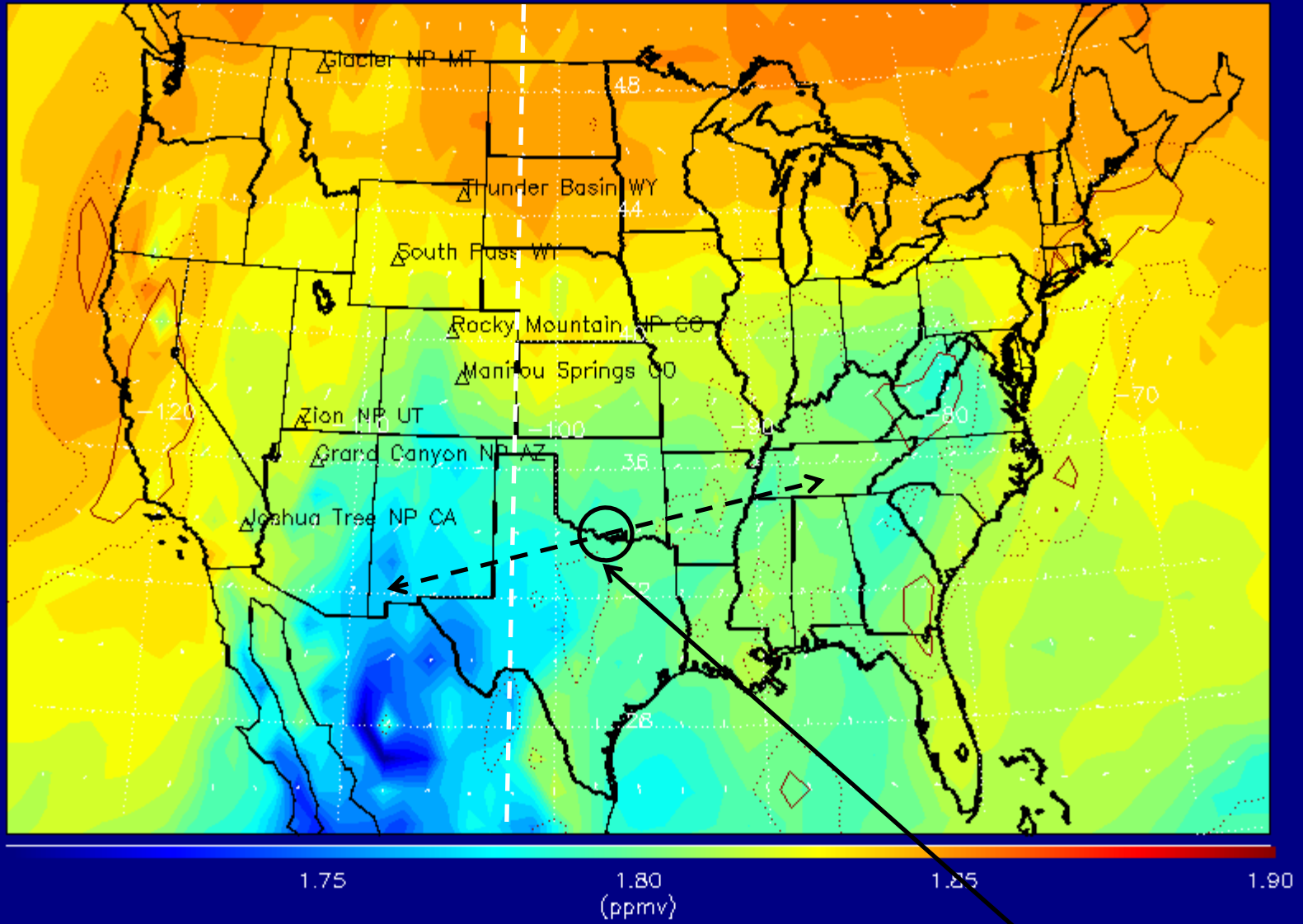
RAQMS<sub>6</sub> 78hr Fx Initialized 12Z 20150404

Permian Basin west of S-NPP swath

Approximate swath width

01km AGL CH4 18Z 20150407

(MSL Pressure Contoured (white)/95-75% Convective Precip (Red) 95% CPCP=0.0923157 mm/hr

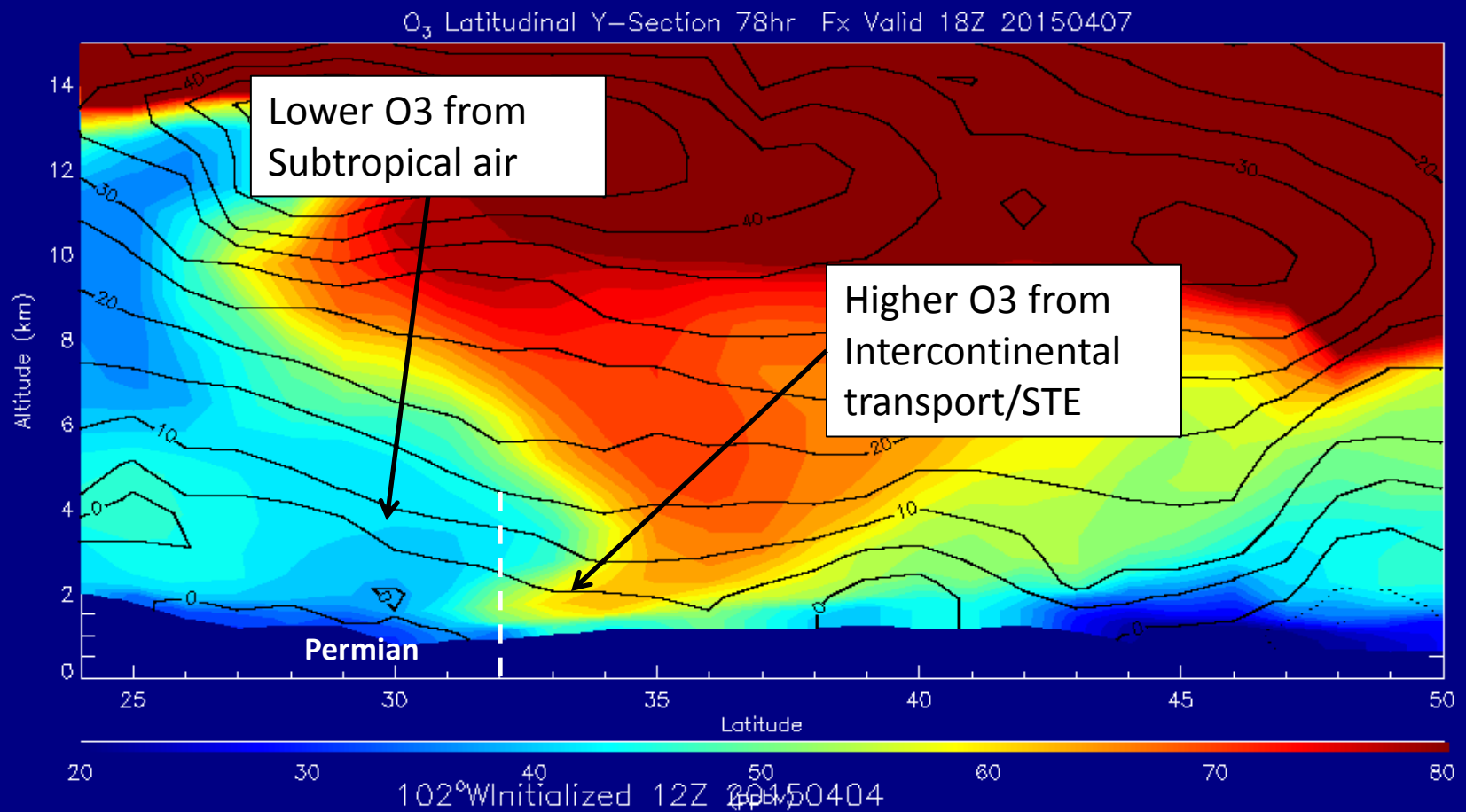


RAQMS<sub>6</sub> 78hr Fx Initialized 12Z 20150404

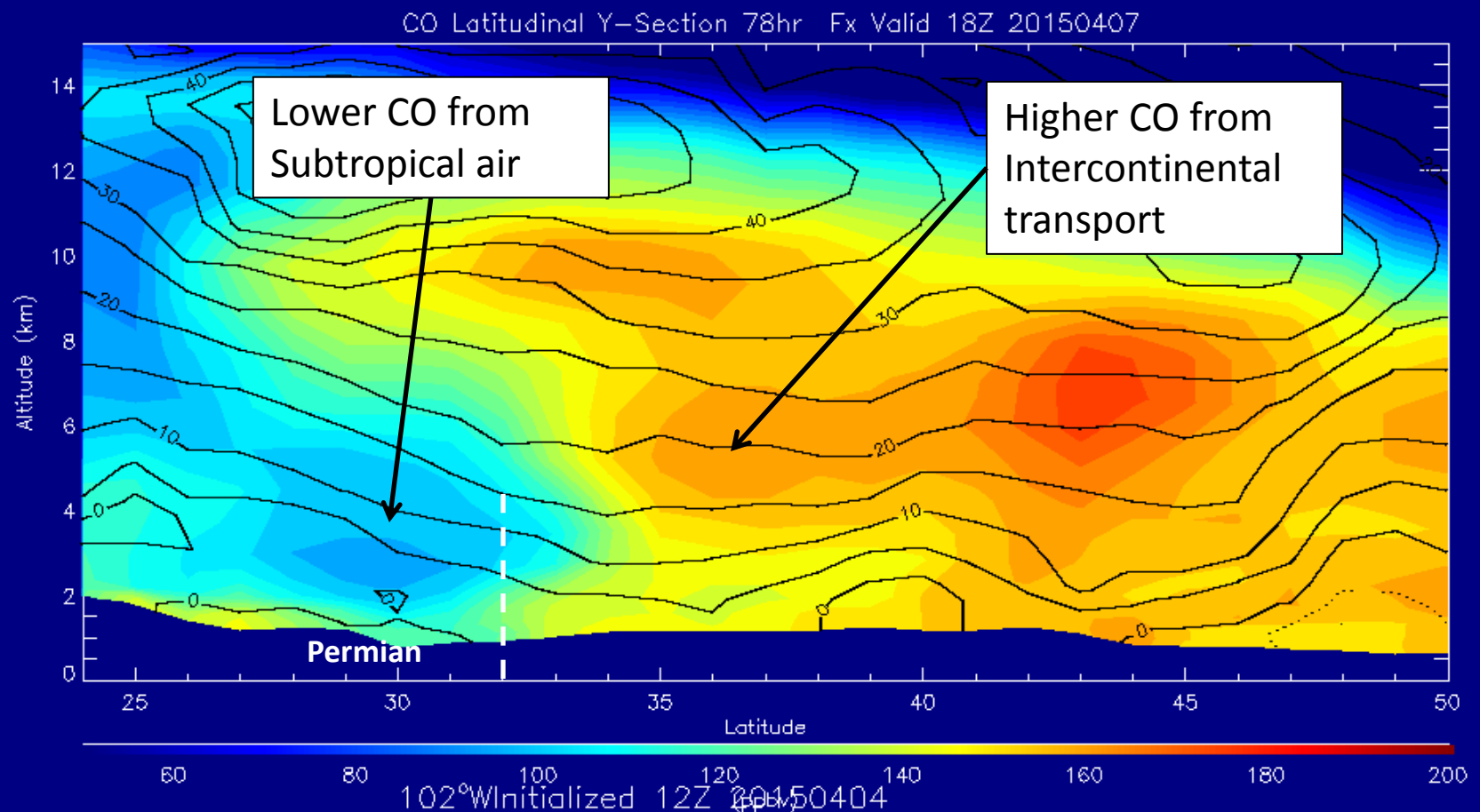
Permian Basin west of S-NPP swath

RAQMS surface CH4 constrained with 1990 mixing ratio – introduces ~0.1ppmv low bias

## RAQMS 78hr FX O<sub>3</sub> Cross-section at 102W (Permian Basin)

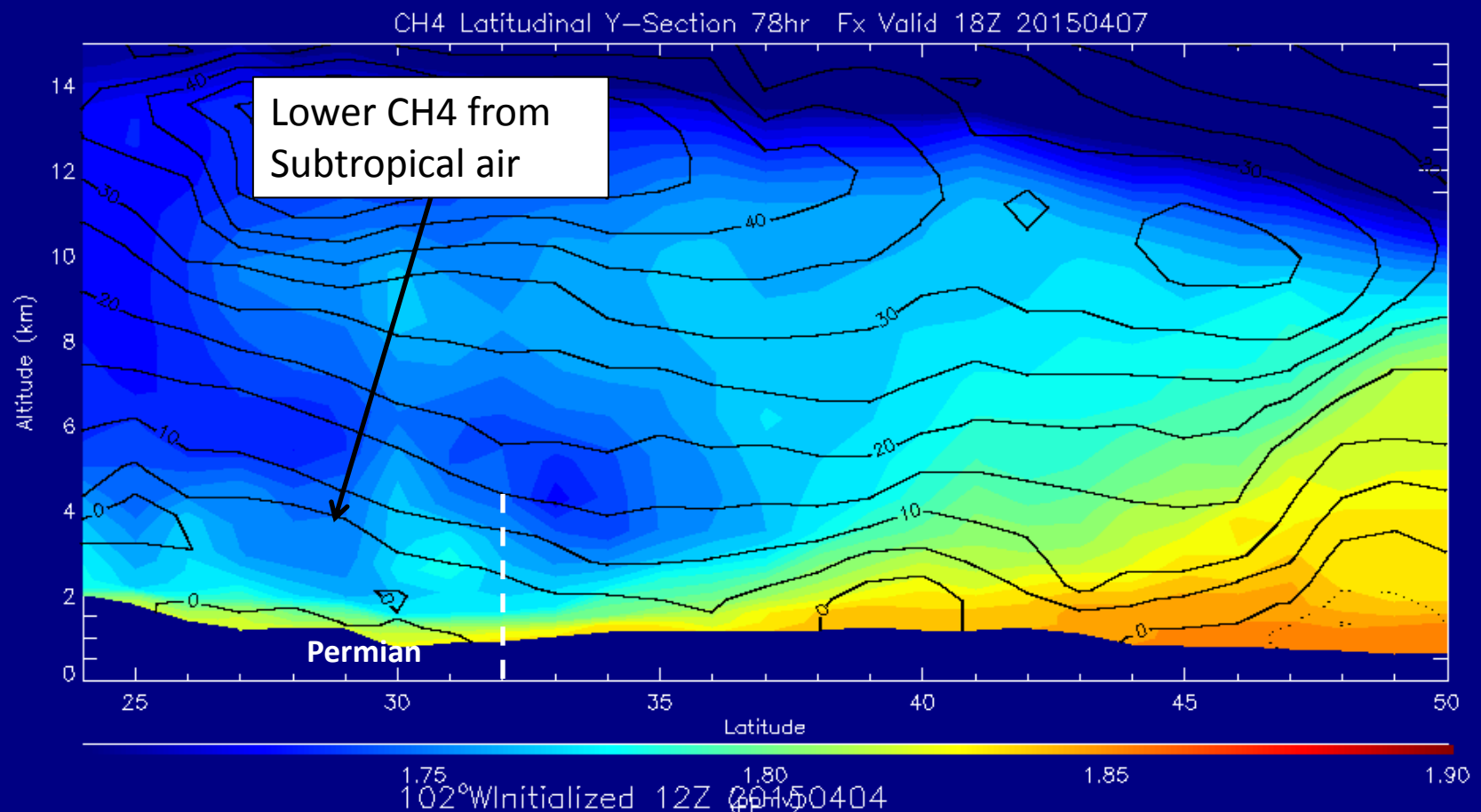


RAQMS 78hr FX CO Cross-section at 102W  
(Permian Basin)





## RAQMS 78hr FX CH<sub>4</sub> Cross-section at 102W (Permian Basin)



RAQMS surface CH<sub>4</sub> constrained with 1990 mixing ratio – introduces ~0.1ppmv low bias